



PUBLIC NOTICE

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FCC Staff Releases Report
“Measured Emissions Data For Use In Evaluating The Ultra-Wideband (UWB) Emissions
Limits In The Frequency Bands Used By The Global Positioning System (GPS)”
(ET Docket No. 98-153)

Comments Due: November 22, 2002

The staff of the Federal Communications Commission today released a report on “Measured Emissions Data For Use In Evaluating The Ultra-Wideband (UWB) Emissions Limits in the Frequency Bands Used By The Global Positioning System” (*Report*).

The Commission on February 14, 2002 adopted a *First Report and Order* in ET Docket No. 98-153 to amend Part 15 of the FCC Rules to permit the marketing and operation of certain types of new products incorporating ultra-wideband technology. UWB devices operate by employing very narrow or short duration pulses that result in very large or wideband transmission bandwidths. UWB technology holds great promise for a vast array of new applications that will provide significant benefits for public safety, businesses and consumers. These applications include imaging systems that can detect objects beneath the surface of the earth or within and behind walls; vehicle radar systems for collision avoidance; and high-speed data communications devices.

In adopting the new rules, the Commission stated that it was concerned that the standards for UWB devices may be overprotective and may constrain the development of UWB technology. Accordingly, the Commission stated that, within the next six to twelve months it intends to review the standards for UWB devices and issue a further rule making to explore more flexible technical standards and to address the operation of additional types of UWB operations and technology.

The Commission established extremely conservative emissions limits to protect the Global Positioning Systems (GPS) against harmful interference. The need for such stringent emissions limits was one of the major issues of contention in the Commission’s rule making proceeding. Many parties argued that the limits for UWB devices are inappropriate given the ambient radio noise that already exists in the environment and levels of radio noise emitted by

millions of other electric devices such as personal computers and appliances.

Accordingly, the FCC Laboratory undertook a study to measure the levels of ambient radio noise that exist in the GPS frequency bands at a variety of indoor and outdoor locations. The outdoor locations included areas near airports, a train yard, a marine port, and industrial park. The indoor locations included a variety of industrial and office buildings. The results of these tests show that the GPS frequency bands generally have very low levels of ambient radio noise in outdoor environments. In contrast, the GPS bands in indoor environments have levels of ambient radio noise well above the UWB emissions limits. The Commission's emissions limits were based on protection of GPS indoor operations. The radio noise in indoor environments can be attributed to radio frequency emissions from a variety of common electrical and electronic devices, such as personal computers, peripherals and electrical machinery.

The FCC Laboratory also measured the radio frequency emissions from a number of radio frequency devices, including personal computers, hairdryers and electric drills. These products generally had emissions above the limits established for UWB devices, but well below the current Part 15 emission limits for digital and other radio frequency devices.

Pursuant to Sections 1.415 and 1.419 of the Commission's rules, 47 C.F.R. §§ 1.415, 1.419, interested parties may file comments on or before **November 22, 2002**. Comments should be filed in ET Docket No. 98-153. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS) or by filing paper copies. See Electronic Filing of Documents in Rulemaking Proceedings, 63 Fed. Reg. 24121 (1998).

Comments filed through the ECFS can be sent as an electronic file via the Internet to <http://www.fcc.gov/e-file/ecfs.html>. Generally, only one copy of an electronic submission must be filed. If multiple docket or rulemaking numbers appear in the caption of this proceeding, however, commenters must transmit one electronic copy of the comments to each docket or rulemaking number referenced in the caption. In completing the transmittal screen, commenters should include their full name, U.S. Postal Service mailing address, and the applicable docket or rulemaking number. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions for e-mail comments, commenters should send an e-mail to ecfs@fcc.gov, and should include the following words in the body of the message, "get form <your e-mail address." A sample form and directions will be sent in reply. Parties who choose to file by paper must file an original and four copies of each filing. If more than one docket or rulemaking number appear in the caption of this proceeding, commenters must submit two additional copies for each additional docket or rulemaking number.

Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail (although we continue to experience delays in receiving U.S. Postal Service mail). The Commission's contractor, Vistrionix, Inc., will receive hand-delivered or messenger-delivered paper filings for the Commission's Secretary at 236 Massachusetts Avenue, N.E., Suite 110, Washington, D.C. 20002. The filing hours at this location are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands

or fasteners. Any envelopes must be disposed of before entering the building. Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to

9300 East Hampton Drive, Capitol Heights, MD 20743. U.S. Postal Service first-class mail, Express Mail, and Priority Mail should be addressed to 445 12th Street, SW, Washington, D.C. 20554. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

The study is available for public inspection and copying during regular business hours in the FCC Reference Information Center (Room CY-A257), Portals II, 445 12th Street, SW., Washington, DC 20554. The complete text of this document also may be purchased from the Commission's copy contractor, Qualex International, 445 12th Street, SW., Room CY-B402, Washington, DC 20554. Parties wishing to file comments on the Interim Report may do so by referencing ET Docket No. 00-232. You may also view the document and all ET Docket No. 98-153, filings by accessing the ECFS at at <http://www.fcc.gov/e-file/ecfs.html>.

This matter shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's *ex parte* rules. See 47 C.F.R. §§ 1.1200 and 1.1206. Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentations must contain summaries of the substance or the presentations and not merely a listing of the subjects discussed. More than a one or two sentence description of the views and arguments presented generally is required. See 47 C.F.R. § 1.1206(b). Other rules pertaining to oral and written *ex parte* presentations in permit-but-disclose proceedings are set forth in 47 C.F.R. § 1.1206(b).

This action is taken pursuant to authority found in Sections 4(i) and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i) and 303(r); and pursuant to Sections 0.31 and 0.241 of the Commission's Rules, 47 C.F.R. §§0.31 and 0.241.

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